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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/814,203	03/31/2004	Yu-Sheng Chou	7023(DIV1)	6023

7590 03/21/2006

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EXAMINER	
SCHNEIDER, JOSHUA D	
ART UNIT	**PAPER NUMBER**
2182	

DATE MAILED: 03/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/814,203	CHOU, YU-SHENG	
	Examiner	Art Unit	
	Joshua D. Schneider	2182	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *31 March 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3 and 5-11* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3 and 5-11* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *3/31/04*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1, 3, and 5-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,131,141 to Ravid in further view of U.S. Patent 6,556,769 to Akahane et al., U.S. Patent 5,237,466 to Glaser et al., and Logic and Computer Design Fundamentals by Mano and Kime.

3. With regards to claim 1, Ravid teaches a source drive (Fig. 1, element 100), a plurality of target drives (Fig. 1, elements 110), wherein the data of said source recording medium are transmitted to a plurality of said target recording medium (column 5, line 35, through column 6, line 38). Ravid fails to teach that the source and target drives have a recording medium, a FIFO and a DMAC. Akahane teaches a drive block that includes hard disks as a recording medium, a DMA controller, and a FIFO memory (Fig. 4, elements 40-43, column 7, lines 57-64). It would have been obvious to one of ordinary skill in the art at the time of invention to use the HDD block of Akahane for the drives of Ravid in order to more efficiently effectuate data transfers by transferring data by DMA without processor intervention. The use of the HDD blocks of Akahane with as the source and target drives duplication system of Ravid would teach a source recording medium, a source DMAC; a source FIFO buffer; a plurality of target FIFO buffers; a plurality of target DMACS, and a plurality of target recording mediums; and wherein the data of

said source recording medium are transmitted to said source FIFO buffer through said source DMAC; the data of said source FIFO buffer are transmitted to a plurality of said target FIFO buffers and the data of said target FIFO buffer are transmitted to said target recording medium through said target DMAC. The combination of Ravid and Akahane does not teach a multiplexer or routing signals through a multiplexer. However, Ravid does teach the use of switches and a controller (Fig. 1, elements 40, 50, 60, 70, and 80) to control access to the bus. Multiplexers were notoriously well known in the art at the time of invention in order to select from a plurality of signals. Ravid teaches that signal can be coming from a PC connected through the parallel port or the source drive (Figs. 1 and 2, column 5, line 35, through column 6, line 64). Glaser teaches that it was well known in the art to use multiplexers to select a single source from a plurality of sources (Fig. 1, elements 25-28). Mano and Kime also teach that multiplexers were well known in the art to be used to select a source signal from a plurality of source signals (see page 119). It would have been obvious to one of ordinary skill in the art at the time of invention to use the multiplexers of Glaser or Mano and Kime with the duplication system of Ravid and Akahane in order to select one of many inputs and steer it to the output line.

4. With regards to claim 3, Ravid teaches plurality of comparators (Fig. 1, element 90), wherein the data of said source recording medium are transmitted to said source FIFO buffer through said source DMAC; the data of said target recording medium are transmitted to said target FIFO buffer through said target DMAC; and the data of said source FIFO buffer are transmitted to said comparators through said multiplexer and compared with the data of target FIFO buffer by said comparators (column 5, line 35, through column 6, line 38, especially column 6, lines 22-29).

5. With regards to claims 5-9, Applicant's numerous definitions of a "recording medium" (claims 5-9) is construed to be an admission that the criticality does not reside in the type of " recording medium" utilized and hence obvious variations of one another.

6. With further regards to claims 5 and 9, Ravid teaches wherein said recording medium is a hard disc that is a memory.

7. With regards to claims 6, 7, and 8, Ravid teaches that other type of recording mediums such as an optical disc, a rewritable optical disc, and a floppy disc, are notoriously well known in the art (column 1, line 39, through column 3, line 8). The rewritable optical disc is not explicitly taught but it notoriously well known in the art to be an alternate way of storing data.

8. With regards to claim 10, Ravid does not teach, but Akahane does teach a transferring interface provided between said source recording medium and said source DMAC (Fig. 4, elements 40-43, column 7, lines 57-64). It would have been obvious to one of ordinary skill in the art at the time of invention to use the HDD block of Akahane for the drives of Ravid in order to more efficiently effectuate data transfers by transferring data by DMA without processor intervention.

9. With regards to claim 11, Ravid teaches a transferring interface being a SCSI control interface by the incorporation by reference of U.S. Patent 5,235,683 to Dahlerud.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. U.S. Patent 6,996,655 to Lee et al. teaches the use of a multiplexer to select between two sending sources. U.S. Patent 6,453,391 to Morita et al. teaches the use of a multiplexed computer system to select a sending unit of a plurality of sending units. U.S. Patent 6,141,298 to

Miller teaches an optical disk duplication system that can use a plurality of sources. U.S. Patent 5,084,789 to Kamo et al. teaches a parallel buffered data transfer system. U.S. Patent 6,292,852 to Bodo et al. teaches a high performance media duplication system.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joshua D. Schneider whose telephone number is (571) 272-4158. The examiner can normally be reached on M-F, 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Huynh can be reached on (571) 272-4147. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JDS

KIM HUYNH
SUPERVISORY PATENT EXAMINER

3/6/06